

**REMARKS**

The Official Action mailed March 19, 2009, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

Second Request: The Applicant notes the *partial* consideration of the Information Disclosure Statement filed on September 20, 2006. Specifically, it appears that the Examiner inadvertently overlooked the citation of JP 2004-282050. A copy of the partially considered Form PTO-1449 citing JP '050 is available in the Image File Wrapper under the heading, "List of References cited by applicant and considered by examiner" and has a mail room date of "06-13-2008" (page 2 of 2). Also, a copy of JP '050 is available in the Image File Wrapper under the heading, "Foreign Reference" (15 pages) and has a mail room date of "09-20-2006." The Applicant respectfully requests that the Examiner provide an initialed copy of the Form PTO-1449 evidencing consideration of JP '050.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on October 31, 2006; and June 4, 2008.

Claims 1-23 are pending in the present application, of which claims 1, 2, 14 and 15 are independent. Box 5 of the Office Action Summary indicates the allowance of independent claim 2, which recites "wherein at least one of the bit lines and the word lines transmits light," and the Official Action concedes that the "prior art fails to teach or fairly suggest ... light transmitting bit lines" (Paper No. 20090314, Page 4). Claim 15 also recites these features. Although Box 6 of the Office Action Summary includes claims 2 and 15 in the list of rejected claims, it is noted that the detailed portion of the Official Action (pages 2-4) does not address the above-referenced features. As such, it is believed that the Official Action may have intended to indicate the allowance of independent claims 2 and 15, and that these claims were inadvertently included in the list of rejected claims in the Office Action Summary and the list of rejected claims at

pages 2 and 3 of the Official Action. Independent claims 1 and 14 have been amended to recite the feature, "wherein at least one of the bit lines and the word lines transmits light," so that all the independent claims now recite this feature, and so that all claims are believed to be allowable.

In any event, as noted in detail below, the Applicant respectfully submits that the prior art of record does not teach or suggest the above-referenced features of the present invention. Favorable reconsideration is requested.

Paragraph 3 of the Official Action rejects claims 1-7, 11, 12, 14, 16-18, 22 and 23 as obvious based on the combination of U.S. Patent No. 6,268,796 to Gnadinger and U.S. Patent No. 5,296,716 to Ovshinsky. Paragraph 4 of the Official Action rejects claims 13, 15-18 and 22 as obvious based on the combination of Gnadinger, Ovshinsky and U.S. Patent No. 6,727,862 to Tomon. With respect to independent claims 1 and 14, the Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended. With respect to independent claims 2 and 15, the Applicant respectfully traverses the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the

art.” In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 1, 2, 14 and 15 already recite that a phase change memory includes a plurality of bit lines that extend in a first direction and word lines that extend in a second direction perpendicular to the first direction. Claims 1 and 14 have been amended to recite, and claims 2 and 15 already recite, that at least one of the bit lines and the word lines transmits light. The Applicant respectfully submits that Gnadinger, Ovshinsky and Tomon, either alone or in combination, do not teach or suggest the above-referenced features of the present invention. The Official Action asserts that Gnadinger inherently teaches a “phase-change type structure.” However, Gnadinger, either alone or in combination with Ovshinsky and Tomon, does not teach or suggest that Gnadinger’s allegedly inherent phase-change type structure could or should include a plurality of bit lines that extend in a first direction and word lines that extend in a second direction perpendicular to the first direction, and that at least one of the bit lines and the word lines transmits light. Also, as referenced above, the Official Action concedes that the “prior art fails to teach or fairly suggest ... light transmitting bit lines” (Paper No. 20090314, Page 4).

Since Gnadinger, Ovshinsky and Tomon do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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